DOCUMENT RESUME

ED 239 774 PS 014 147

AUTHOR Matronia, Cheryl A.
TITLE Relationship of Direct Instruction and Practice to Development of Motor Skills.
PUB DATE Jul 82
NOTE 49p.; Practicum Report, Nova University.
PUB TYPE Dissertations/Theses - Practicum Papers (043)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS Group Activities; *Instructional Improvement; *Kindergarten Children; *Motor Development; *Movement Education; Physical Activities; *Play; Pretests Posttests; Primary Education; *Psychomotor Skills
IDENTIFIERS *Direct Instruction

ABSTRACT

Results of a practicum study comparing two kindergarten classes scoring similarly on a pretest of motor development indicated that children receiving direct instruction in motor skills for 10 weeks scored significantly higher on a posttest than did controls. The practicum was implemented because of classroom teachers' expressed concern about their students' lack of motor coordination; only 70 percent of their students had mastered the tasks identified for kindergarten children on the motor coordination section of the Santa Clara Inventory of Developmental Tasks. A review of current literature on teacher effectiveness led to the adoption of an intervention strategy providing training for classroom teachers and teacher aides in addition to the use of organized group physical education activities for children. Resources available in the school were used to design a packet of activities. Each activity was conducted for about 10 minutes each day for 5 weeks. The program was then modified and repeated. Included in the packet were various activities aimed at increasing children's ability to hop, balance on one foot, bounce a ball, skip, and walk a balance beam. Participating teachers' evaluation of the intervention was positive. (Related materials, including samples of packet activities, are appended.) (RH)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

X This document has been reproduced as received from the person or organization originating it.
Minor changes have been made to improve reproduction quality.

• Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

ED239774

RELATIONSHIP OF DIRECT INSTRUCTION AND PRACTICE TO DEVELOPMENT OF MOTOR SKILLS

by

CHERYL A. MATRONIA

A Practicum Report

Submitted to the Faculty of the Center for the Advanvement of Education of Nova University in partial fulfillment of the requirements for the degree of Master of Science.

"PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

Cheryl A. Matronia

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

JULY/1982

PS 014147

AUTHORSHIP STATEMENT

I hereby testify that this paper and the work it reports are entirely my own. Where it has been necessary to draw from the work of others, published or unpublished, I have acknowledged such work in accordance with accepted scholarly and editorial practice. I give this testimony freely, out of respect for the scholarship of other workers in the field and in the hope that my own work, presented here, will earn similar respect.

ABSTRACT

Relationship of Direct Instruction and Practice to Development of Motor Skills.
Matronia, Cheryl A., 1982: A Practicum Report, Nova University, Center for the Advancement of Education

Descriptors: Motor Development/Pyschomotor Skills/ Movement Education/Playground/Physical Education/ Kindergarten/Primary Education/Free Play/Frostig/

One kindergarten teacher and aide, under the direction of the author, implemented activities in their classroom during outdoor play designed to improve motor coordination of the group. The goals of this program were to improve group participation and large muscle skills.

Two kindergarten classrooms were selected to take part in this project. Both groups were administered the Santa Clara Inventory of Developmental Tasks-Motor Coordination Section as a pre-test. One of the classrooms, from this point known as Group A, was designated the treatment group and participated in daily outdoor activities directed by aide, teacher and author. The other

classroom, known as Group B, received no special instruction or practice relating to motor development. At the end of a ten week period, the Santa Clara Inventory of Developmental Tasks-Motor Coordination Section was readministered as a post-test. After compiling and comparing the results of the pre and post-tests, it was evident that there was a significant difference of improvement in motor coordination of Group A over Group B. Teachers' committment to instruction and practice during outdoor play was increased. The aide's observations also revealed an increase in the amount of group participation and interaction. (Appendices in this practicum include profile sheet for pre and post tests, criteria for mastery of tasks, suggested yearly plan for a physical education program, a sample of activities compiled, and evaluation instruments for teacher and aide.)

APPENDIX F

NOVA UNIVERSITY
CENTER FOR THE ADVANCEMENT OF EDUCATION
3301 College Avenue
Fort Lauderdale, FL 33314

OBSERVER VERIFICATION FORM

Verification of Practicum Activity

Dear Observer:

Practicum students in Nova's M.S. and Ed.S. programs are asked to provide external verification that the project activities reported in their final practicum documents took place as described. You have been designated an observer to fulfill this confirmation function by the student named below. On this sheet, then, please write a note attesting to your knowledge of the project activity described in the final practicum report to which this will be attached. (Note that you are not asked to evaluate, or make judgments about the quality of the project.)

I have personally witnessed Cheryl Matronia carrying out the project activities as described in her practicum. She has done this in a very professional and precise way.

Practicum Title RELATIONSHIP OF DIRECT INSTRUCTION AND PRACTICE TO DEVELOPMENT OF MOTOR SKILLS

Student's Name Cheryl A. Matronia

Program Site Fort Myers, Florida Date 6/82

Observer's Name Patti van der Have Patti vanderHave
(Please print ---------- and sign)

Observer's position Assistant Principal

TABLE OF CONTENTS

TITLE PAGE..... 1

AUTHORSHIP STATEMENT..... ii

ABSTRACT..... iii

OBSERVER'S VERIFICATION..... v

TABLE OF CONTENTS..... vi

CHAPTER

1. PURPOSE..... 1

Table I-Initial Screening..... 3

2. RESEARCH..... 5

3. METHOD..... 15

Section A-Designing Activity Packet.... 15

Section B-Inservice..... 16

Section C-Implementation..... 17

4. RESULTS..... 20

Table II-Group A-Pre & Post Tests..... 21

Table III-Group B-Pre & Post Tests..... 22

Table IV-Comparison Chart-Pre-test..... 23

Table V-Comparison Chart-Post-test..... 24

5. RECOMMENDATIONS..... 28

BIBLIOGRAPHY..... 30

APPENDICES

APPENDIX A: Santa Clara Inventory of Developmental Tasks Profile... 33

APPENDIX B: Yearly Program..... 34

APPENDICES(continued)

APPENDIX C: Mastery Criteria for Santa Clara Inventory..... 35

APPENDIX D: Sample of Activities in Packet..... 36

APPENDIX E: Evaluation Surveys
Aide..... 39
Teacher..... 40

CHAPTER 1: PURPOSE

The setting for this practicum, is a school with an enrollment of 1200 students in grades kindergarten-fifth. Eighty per cent of the student population come from a middle to upper class community which has been in existence for twenty-three years. The remaining twenty per cent are minority students which are bussed from a lower economic area. Approximately one-third of the student body are native to this area, with the remaining two-thirds predominately from the midwestern and eastern states. The students' parents work in a variety of professional, white-collar, and blue-collar jobs. They are very concerned about their children's education and take an active part in all school activities as well as the volunteer program.

The author of this practicum serves as a primary specialist and has most of her experience at the kindergarten and first grade levels. Her duties keep her in close contact with the primary teachers and children. A primary specialist is involved with health, educational and behavior screening for all kindergarten children. Initially, she assists the classroom teacher with the screening; later in the year, she initiates it for any

new child. As a result of this screening, she continually monitors progress of children. Her position allows her to observe students in the classroom as well as in settings outside the classroom; during lunch, recess, in the hallways or on the bus ramp. As a result of these observations plus a collection of data, she can assist the classroom teacher in providing strategies for individual educational improvement.

At the present time, each kindergarten classroom has approximately twenty-seven students with a teacher and a full time aide. There are three regular volunteers per week who work with the students on various classroom activities. In addition to the regular curriculum, the classroom teacher is responsible for art, music, and physical education activities. The specialists in these areas are to be used as resource persons by the teacher. Under aide supervision, the kindergarten children spend twenty-five minutes each day on a playground designed for 5-6 year old children. The equipment consists of climbing dome, slide, balance beam, jungle gym, spring animals, swings, large tractor tire, funnel ball and blacktop area. Jump ropes, balls and hoops are usually available.

A lack of motor coordination in all six of the kindergarten classrooms had been expressed as a concern by the classroom teachers. In an examination of the scores of the motor coordination section of the Santa Clara Inventory of Developmental Tasks,(Appendix A) the writer found that only seventy per cent of the children

had mastered the tasks identified for the kindergarten student. This evidence is reported in Table I.

TABLE I
INITIAL SCREENING FOR SANTA CLARA

SKILL	# SCREENED	#MASTERY	% MASTERY
1-5 Hop	149	100	67
1-6 Balance	154	132	86
1-7 Bounce	149	89	60
1-8 Skip	88	56	64
1-9 Beam	89	58	65
Average	126	87	69

The Santa Clara is used by this county's kindergartens as a screening and assessment instrument. It is used as ongoing evaluation of progress throughout the school year.

The teachers felt frustration with their attempts to organize an outdoor program, due to a lack of support from a physical education consultant and aosence of a curriculum guide. They also felt they needed more materials and equipment. The writer of this practicum saw the need to assemble the present materials into a useful instructional mode. The writer feels that the problem to be addressed here is one of actual direct instruction and practice of the motor skills. That direct instruction is associated with increased learning gains is a common, almost universal

conclusion of recent research by Stallings and Hentzell, Gage, Inman, and McDonald.[1]

Two of the kindergarten classes were used to measure the success of the writer's plan to improve motor skills through direct instruction and practice. One of the classes will participate in daily activities designed by the writer to improve coordination. It was the objective of the writer to increase mastery scores on the Santa Clara after a ten week period. An increase in group participation in outside activities as observed by the aide and writer was a second objective. Students showing an increase in related large muscle activities within the classroom as observed by the teacher was the final objective.

---

[1]Thomas L. Good, "Teacher Effectiveness in the Elementary School," Journal of Teacher Education 30 (March/April 1979), pp. 55-56.

CHAPTER 2: RESEARCH

Since the 1960's and the development of the President's Council on Physical Fitness, a new emphasis has been placed on physical education. Some states require at least thirty minutes per day or 150 minutes per week of physical education classes. In this requirement, it should be apparent that physical education is viewed as an integral part of a child's education. Physical education really encompasses many areas, each being viewed as most important depending on the researcher's philosophy. Fitness, gross motor development, coordination, movement, balance and locomotor skills are all categorized under physical education and many are interrelated. No matter what the definition used, the researchers agree that a child's self image is related to his understanding of his own body position in space and his control of movement patterns.[2] Ultimately then, physical education is concerned with each individual's improvement.

Many researchers have reported that the development of gross motor skills is critical before a child is expected to learn the more complex skills of reading and

---

[2]Nona G. Sall, "A Gross Motor Skills Development Program for Children in Kindergarten-Primary," Doctoral Practicum, Nova University, March 1975, p. 26.

writing. Kephart revealed a relationship between the ability to perform perceptual motor skills and success in the classroom. He contends that a diagnosis of a deficiency in the performance of motor skills is necessary for reading.[3] Delocato showed in his study that physical education activities are valuable in developing basic academic skills such as laterality and visual perception, and must be learned before a child is ready to read.[4] In their Motor Aptitude and Intellectual Performance Test, Ismail and Gruber tried to show symmetrical and assymetrical hopping was the best motor criterion for predicting academic success. However,the correlation coefficienct was only .348. In a later study, Ismail did establish a relationship between motor characteristics balance, coordination and kinesthetic intellectual variables. Ismail's theory is supported by other studies of perceptual motor functioning which tends to show balance as the one factor which correlated most highly with reading ability.[5]

Bentley reports that 90% of gross motor body movements, large muscle activity, are attained by twelve years of age and over 80% of fine motor coordination is developed by that age. Basic motor skills such as walking, hopping,

---

[3]Sall,"A Gross Motor Skills Development Program for Children in Kindergarten-Primary," p.20.

[4]Division of Curriculum Development, Approaches to Programs of Motor Development and Activities for Young Children, Austin: Texas Education Agency, 1977, p. 18.

[5]Ibid., p. 20.

running, jumping, throwing and catching can be developed during early childhood.[6] Most parents spend a great deal of time in a child's first year of life teaching the child to walk and talk. Then for the next ten years, the child is encouraged to sit down and be quiet. Development of motor skills takes place in and outside of school. Readiness is not only the preparedness to learn but the result of learning and it can be taught. However, students learn best by doing. If one subscribes to Gagne's theory, the acquisition of motor skills is best accomplished by repetition and practice.[7] Locke and Jensen did a study of student attention through self-report. They found "students paid most attention while performing."[8] Actually motor skills should be overlearned to the point where they become automatic. Basic skills must be mastered early in order to achieve more structured forms of movement such as games, rhythms and stunts.[9] Supporting

---

[6]Sall, "A Gross Motor Skills Development Program for Children in Kindergarten-Primary," p. 23.

[7]Jay P. Lutz, Research Lecture, Nova University, Fort Myers Site, September, 1981.

[8]Nancy Lay, "Practical Application of Selected Motor Research," Journal of Physical Education and Recreation 49 (September 1979): 78-9.

[9]Gladys Andrews Fleming, "Movement--A Way of Learning," Physical Education for Children's Healthful Living, Association for Childhood Education International #23A, Washington, D.C., p. 45.

this view is Daryl Siedentop who sees instructional physical education as the base of a triangle with intramurals in the center and inter-school athletics at the apex.[10]

According to research conducted by Professor Guy G. Reiff of the University of Michigan, only one child in three participates in a daily school program of physical education and some young children have no program at all.[11] Another respected educator, Dee DaBramo from New York State, has indicated that only one-third of America's schools have good physical education programs.[12] A look at this county's schools by the writer could confirm this statistic. Of six, qualified full-time physical education instructors interviewed, two felt they had a good physical education program in the elementary school, (Grades 1-5). The responsibility of being a resource person for the kindergarten teachers was seen as totally lacking--mostly from the standpoint of time and schedules. Kindergarten teachers from five schools were also approached by the writer. When asked about their physical education program, the response was generally the same, "The children need an opportunity to run off steam and just play."

Yes, children do need an opportunity to play. The question is, "What kind of play?" Physical education

---

[10]Daryl Siedentop, Physical Education-Introductory Analysis, (Dubuque, Iowa: Wm. C. Brown., 1976), p. 42.

[11]Claire Safran, "How Good is Your Child's Physical Education?" Redbook, November, 1981, p. 43.

[12]Ibid., p. 23.

is nothing more than a sequence of skills, attitudes and knowledge just as any other subject.[13] Motor development cannot be left to chance. The opportunity for motor skill development through play is probably one of the easiest parts of the kindergarten curriculum to achieve. It is a challenge to a regular teacher to be alert for every opportunity to encourage children's physical activity. Movement can become a means of clarifying ideas and seeing relationships to help the children establish a meaning.[14] It is not necessary or important to have children stand in a line or jump on two feet until all can achieve mastery. But a circle on the pavement with the children jumping in and out or over a puddle will not only have the most lasting meaning, but will probably be better received by the class, too.

In Oregon schools, physical education is required as part of the (K-12) curriculum. For curriculum balance, eight per cent of the instructional time is alloted to physical education in kindergarten through eighth. Recess, free play, noon and after school activities are not counted

---

[13]Madeline C. Hunter, "The Role of Education in Child Development and Leaning," Physical Education for Children's Healthful Living, Association for Childhood Education International #23A, Washington, D.C., p. 3.

[14]Robert S. Fleming, "Movement--an Essential in a Good School Day," Physical Education for Children's Healthful Living, Association for Childhood Education International #23A, Washington, D.C., p. 13-20.

as physical education.[15] In Anchorage, a weekly set of lesson plans encompassing an entire year of activities was produced for teachers.[16] Marian Simpson also designed a manual of orderly, sequenced activities for thirty-three weeks, twenty minutes per day.[17] The curriculum presently adopted by this county recommends thirty minutes of planned instruction in kindergarten through sixth. The guide includes a suggested yearly physical education program. (Appendix B) The emphasis in each of the previous resources has been on planned, organized implementation of activities. The current research on effective schools and teachers relates positively to this concept. Lindquist and Witte showed that in the area of motor development, the students who achieved most were those who had instructors who distributed practice better--pacing. They also found in their study that the time alloted for physical education was adequate in most cases but that teachers need to utilize their time more efficiently.[18]

---

[15]Oregon State Department of Education, Physical Education in Oregon Schools, Salem: State Government, 1979.

[16]Anchorage School District, Elementary Physical Education Weekly Lesson Plan-Kindergarten, Anchorage: School District, 1977.

[17]Marian Simpson, Motor Perception Activities for the Kindergarten, Wayne, Nebraska: Project Success, 1977.

[18]Lay, "Practical Application of Selected Motor Research," p. 78.

"Time is opportunity to learn and some students have more opportunity than others."[19] The time allotted to physical education should not be a respite from but an opportunity for learning.[20] Students achieved more in group situations than in seatwork, which involves little interaction with the instructor.[21] Physical activity periods should be organized to encourage maximum participation. Enough suitable equipment for practicing skills should be made available so children do not have to wait their turn. Time spent standing in line is wasted and tends to diminish the interest children have in being active.[22]

Physical education is a part of the total educational program, that a teacher is responsible for, in which each individual develops his own potential. Just as in any subject, physical education skills needs must first be assessed, objectives designed, a program implemented and a variety of methods for learning the skill must be provided before evaluation takes place.[23] Physical

---

[19]Linda Shalaway, "42% of day is spent in non-instructional activities," Instructor 91 (September 1981): 58-9.

[20]Hunter, "The Role of Education in Child Development and Learning," p. 3.

[21]Jane Stallings, "How instructional processes relate to child outcomes in a national study of Follow Through," Journal of Teacher Education 27 (1976): 43-7.

[22]J. Tillman Hall, Nancy Hall Sweeny, Jody Hall Esser, Until the Whistle Blows (Santa Monica, California: Goodyear Publishing Company, Inc., 1976, p. 6.

[23]Charles B. Corbin, Becoming Physically Educated in the Elementary School, 2d. ed. (Philadelphia: Lea & Febiger, 1976), p.4.

education should be something done to help accomplish all other educational objectives.

One strategy that could be implemented to increase motor development through physical education is to include kindergarten classes within the regular framework of physical education instructed by a specifically trained physical education teacher. However Dana Brooks feels that the study of motor development does not belong in physical education but rather be taught by an early childhood development specialist.[24] The rationale in this county has been that it is too difficult for a kindergarten child to feel secure in his environment with many different teachers, a specialist for each subject. And even with one and one-half regular physical education teachers, in order to give everyone equal time, there is often three classes at a time on the physical education field. So there was no room in the present schedule to allow even two extra periods for the kindergarten.

A second strategy that could have been implemented was to provide a break time or free period during the day for the kindergarten teachers, making it possible and necessary for them to stay with their class for outdoor activities. However, this strategy would need to be planned and implemented by the administration. The writer felt she had no control over this procedure.

---

[24]Dana Brooks, "Survey of Current Status of Motor Development," Journal of Physical Education and Recreation 50 (October 1979): 79-80.

The strategy of designing organized physical educational activities and to provide training for both aide and teacher was chosen by the writer after reviewing the current literature on teacher effectiveness by Thomas L. Good. He gives positive research evidence to direct instruction. In his definition, direct instruction is considered active teaching. A teacher sets and articulates goals, actively assesses student progress and frequently makes class presentations illustrating how to do assigned work. Direct instruction does not occur when teachers do not actively present the process under study, when they fail to actively supervise students or if they do not hold students accountable.[25] In the strategy selected by the writer, it was felt that the teacher and aide would come to know and understand the class and individual strengths and weaknesses better through daily observation and participation.

Stallings and Hentzell have concluded that higher achievement gains are associated with active involvement with students and a well organized and structured learning situation.[26] Once again, the writer should stress "structure" on the physical education field does not imply four rows of children, standing, waiting for directions. Structure is a planned activity or group of activities with an adequate amount of materials assembled (beforehand) ready for use by the class. The teacher's

---

[25]Good, "Teacher Effectiveness in the Elementary School," p. 52-63.

[26]Ibid., p. 56.

job of organization should not diminish on the playground if she wants her class to achieve maximum learning potential. The teacher has a professional responsibility to provide for every aspect of the child's development.

Corbin feels that at the kindergarten level, children should be interested in and appreciate play, exercise and skill learning. They should be able to display socially desirable behavior. But the most important part of their activities should be to develop coordination and balance in movement of body parts especially in the basic locomotor skills of crawl, walk, run, jump, hop, skip and gallop.[27] The Santa Clara Inventory of Developmental Tasks measures each of those at its basic level, motor coordination. The criteria for mastery of these tasks is located in Appendix C.

The strategy chosen by the writer seemed to be appropriate for the problem being addressed in this practicum because it is concerned with development of each motor skill area through whole class activities. The problem seemed to be lack of organization and structure of the group outside. Consequently, the plan of implementing organized group activities seemed to be the logical solution.

---

[27]Corbin, Becoming Physically Educated in the Elementary School, p. 53-76.

CHAPTER 3: METHOD

Section A-Designing Activity Packet

After selecting the strategy, it was necessary to obtain permission from the school administration to conduct the activities. The writer also met with the kindergarten team of teachers and aides and described the intended plan. Two teacher-aide teams consented to participate in the program. One team, Group A, was the treatment group on which the motor coordination packet was used each day for ten weeks. The other team, Group B, continued their outside program of free play with just supervision and no instruction.

Prior to implementation, a packet of activities was designed by the writer to develop and improve motor coordination. The packet was compiled from suggested activities in (1) Move, Grow, Learn, Frostig(1969); (2) Jump to Learn, Colwell(1975); (3) Until the Whistle Blows, Hall, Sweeny, Esser(1975); (4) Santa Clara Inventory of Developmental Tasks(1974). The packet contained lessons for five weeks and was repeated with revisions for the second five weeks. The writer used these resources because they were presently available in the school at the kindergarten level.

The activities were written on 5x7 cards. Some

information included on the card was the objective of the activity, materials needed, number of participants and specific directions. Each activity was designed to use about ten minutes of the twenty-five minute outdoor period. The remainder of the outdoor period could then be used for additional practice or free play. Since it was important for the writer to receive weekly feedback and to make ongoing and mid-course corrections, a comment space as to the success of each activity was provided on the back of each card. The writer also included pertinent questions as to length, group interest and participation in the activity.

Section B-Inservice for Aides and Teachers

After initial conference with the teachers, the writer spent several sessions with all the kindergarten teachers sharing the results of research. Much of the material presented in the Research section of this practicum was shared orally with the teachers. It was the writer's intent to develop a firmer committment on the part of the teachers to the outdoor program. It was also the intent to keep all kindergarten teachers informed rather than just the two who were actually participating. Once the teachers realized what a close interrelationship there was between outside "play" and indoor learning, they were anxious to begin implementation. All of the kindergarten teachers had been aware of this problem for some time but other responsibilities had interfered with setting

up a structured outside program. After implementation, the writer again conferenced with all kindergarten teachers to share the results of this practicum. From this, the teachers began planning for next year.

One period each week, the writer met with the aide who was responsible for conducting the outdoor activities. At that time, she was presented with the activity cards for the coming week. The aide and writer discussed each card's contents. She was encouraged to gather the materials needed for the week and store them in an easily accessible place. If the aide had encountered any problems the previous week, these were discussed. The activity cards had been written so that initially practice on the skills would be in groups of 6 or less. One day each week there was a whole class activity usually in the form of a game. This gave the aide time to increase her confidence in working with the children. In addition to these weekly conferences, the writer tried to be available any time there were specific questions.

After implementation, the writer met with all aides to share the results of this practicum. It was felt by the writer that the aides enjoyed being included in this active learning. They were very anxious to know if the activities had helped improve motor coordination.

Section C-Implementation of Activity Packet

After inservice for teachers and aides and the development of the packet, the use of the packet was

begun. Since the Santa Clara Inventory has five major motor coordination tasks to master at the kindergarten level, hop, balance, bounce, skip, balance beam, the schedule was arranged to practice a different skill each day of the week. These skills were rotated over the ten week period. The degree of difficulty of the skill was progressively increased during the same ten weeks. A sample of activities for each skill is included in Appendix D.

One day each week for a period of ten weeks, the writer directed the activity. Since the skills were rotated, the writer presented two activities for each skill during the course of the ten weeks. In presenting these activities, the writer served as a role model for the aide. The writer also was able to make continual observations during this time. One day per week the classroom teacher was encouraged to give up her break time during the outdoor period and to participate with the children while assisting the aide.

The aide carried out the activities alone during the twenty-five minute outdoor period for three days each week for ten weeks. Most of the activities took about ten minutes to complete. It was not the writer's intent to endlessly drill on a skill, ex. bouncing a ball, until mastery was accomplished. By presenting the same skill in a variety of ways over the ten week period, it was hoped mastery would be painlessly obtained.

The only problem encountered during implementation was the lack of consummable physical education equipment. Even though there is a locked cupboard in the play area, the writer only found 5 balls and 2 jump ropes. For those activities involving balls and jumpropes, they had to be borrowed and returned each time from the physical education teacher's equipment for grades 1-5. This problem will be addressed in the Recommendations section of this report.

CHAPTER 4: RESULTS

After a period of ten weeks implementation, the Santa Clara Inventory of Developmental Tasks--Motor Coordination section was readministered using the criteria presented in Appendix C. The Santa Clara, a criterion referenced test, was administered to both kindergarten classes included in this practicum even though only one of the classes, Group A, will have received the benefit of inservice training, prescribed activities and direct instruction to improve motor coordination. All testing needed for this practicum was conducted by the writer to reduce inconsistency of variables.

A comparison chart has been constructed as a result of this testing and shows the success of this practicum. This material is presented in Tables II and III on pages 21-22. As expected, Group A, the treatment group showed greater gains in mastery after the Santa Clara testing. This group received direct instruction and practice in improving motor coordination. Greater gains should also have been realized on other sections of the Santa Clara, but the writer did not concentrate on those. A t test compared the groups as to significant difference. This evidence is presented in Tables IV and V on pages 23-24.

TABLE II

COMPARISON OF PRE & POST TEST

SANTA CLARA INVENTORY OF DEVELOPMENTAL TASKS

GROUP A-TREATMENT GROUP

Level of Skill	Skill	Number of children tested	PRE TEST			POST TEST		
			Number Mastery	Number Non-Mastery	% Mastery	Number Mastery	Number Non-Mastery	% Mastery
4 year	1-5 Hop	25	16	9	64	23	2	92
4½	1-6 Balance	25	21	4	84	25	0	100
5	1-7 Bounce	25	19	6	75	24	1	96
5½	1-8 Skip	25	12	13	48	23	2	92
6	1-9 Balance Beam	25	12	13	48	25	0	100

Treatment group received direct instruction, organized activities and practice.

TABLE III

COMPARISON OF PRE & POST TESTS

SANTA CLARA INVENTORY OF DEVELOPMENTAL TASKS

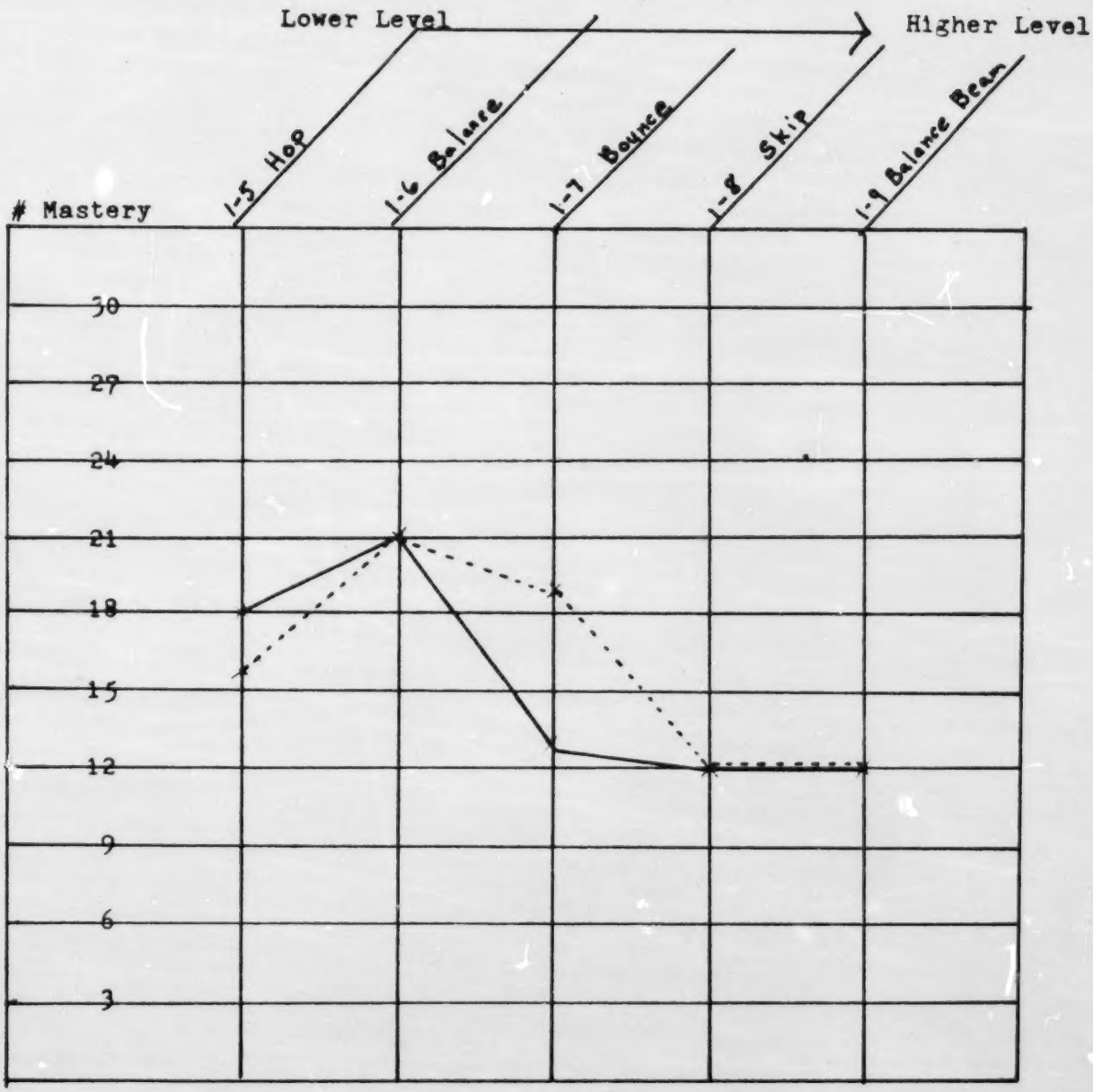
GROUP B-NON-TREATMENT GROUP

Level of Skill	Skill	Number of children tested	PRE TEST			POST TEST		
			Number Mastery	Number Non-Mastery	% Mastery	Number Mastery	Number Non-Mastery	% Mastery
4 year	1-5 Hop	25	18	7	72	23	2	92
4½	1-6 Balance	25	21	4	84	25	0	100
5	1-7 Bounce	25	13	12	52	22	3	88
5½	1-8 Skip	25	12	13	48	14	11	56
6	1-9 Balance Beam	25	12	13	48	13	12	52

Non-treatment group received supervision and free play.

TABLE IV

COMPARISON OF PRE*TEST SCORES

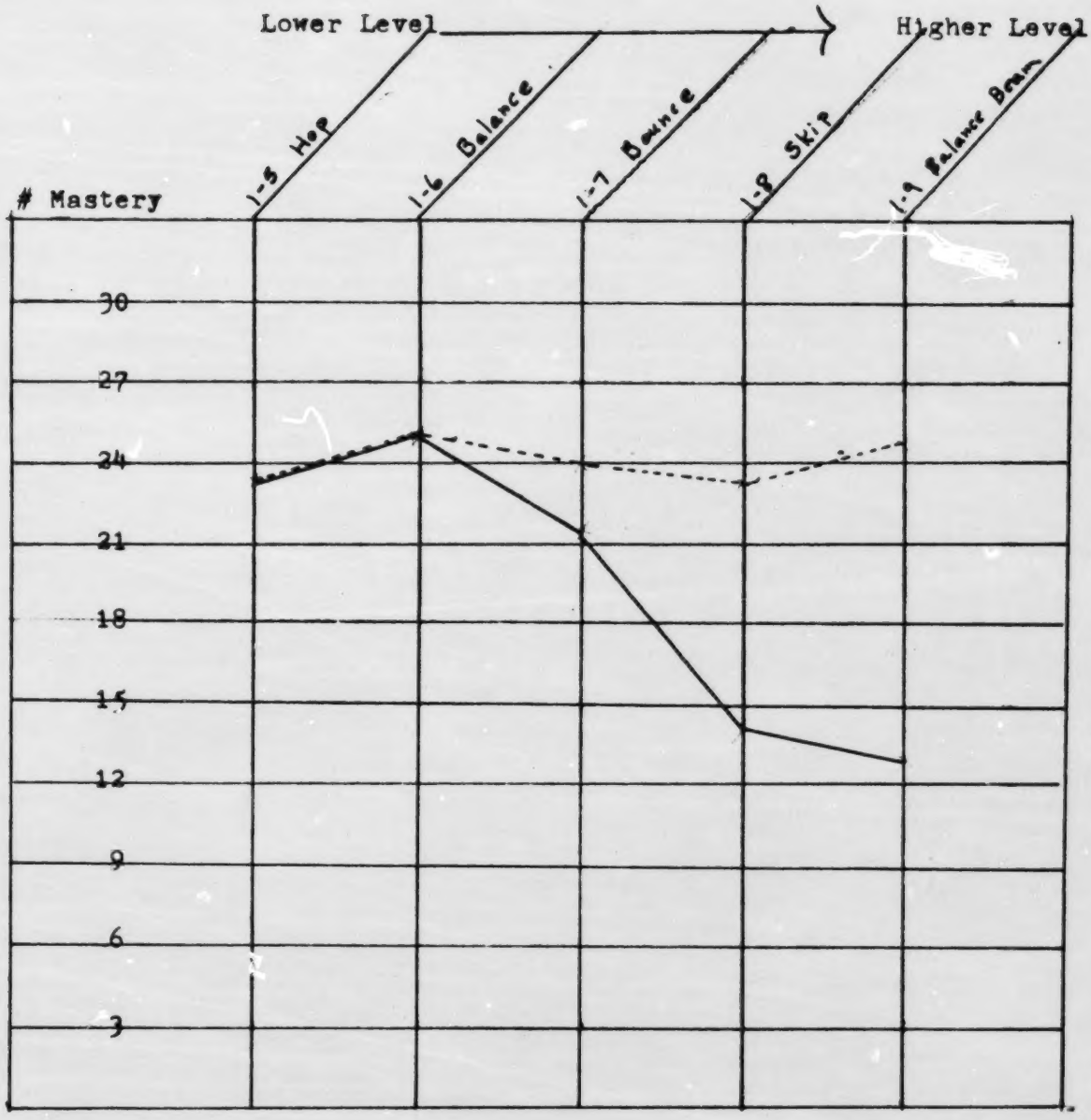


---------Group A(Treatment) _____Group B(Non-treatment)

As indicated in Table IV, there existed no significant difference between the groups before treatment. ($N=25$, $t=1.58$; $df=48$; $p<.01$)

TABLE V

COMPARISON OF POST TEST SCORES



As indicated in Table V, a significant difference did exist between the two groups as a result of the treatment.

(N=25, t=3.45; df=48; p<.01)

A close examination of the comparison charts or Tables IV and V shows that Group B also increased mastery level of skills in each area of motor coordination. The writer feels that this increase is due in part to normal child growth and development. It is evident that as the level of skill increased, the proficiency in each area decreased. Group B also had some planned preparation for a Field Day.

Based on these results, teachers were given on site evidence of the importance of direct instruction. Evidence should also be provided as to the importance of positive kinesthetic experiences at this level vs. repeated paper/pencil tasks.

Since every child in the class participated in the activity packet, the writer felt that no negative side effects were encountered. No one child or group of children were singled out to practice more than others. Those children who had mastered a particular skill were encouraged to help others, and a valuable peer tutoring experience was realized.

An extremely important segment of this evaluation process came from the observations of teacher, aide and writer. They were asked to assess the success of the practicum as to group participation and large muscle development. They were also asked to examine how they felt in implementing the activities for ten weeks. Two surveys were developed by the writer for the teacher and

aide respectively. These are included in Appendix E.

The aide and teacher were strongly in favor of an organized outdoor program. In a follow up conference, the aide said she felt more confident having a specific task to do than the general term "supervision." She also indicated that there were fewer problems with fighting and hitting when the children were involved in a specific activity. It seems to be that the average kindergarten child still needs much direction as he progresses from parallel play to cooperative play.

Group participation did increase over the ten week period as observed by aide, teacher and writer. Several of the activities used teams of players. Some of the children became active observers as well as participants for their team.

Many of the children who seemed to have a low self-esteem in the classroom became the leaders in the outdoor activities. From this evidence, the writer would suggest more active learning for these children.

From the teachers' evaluations, the writer learned that each teacher planned to put a greater emphasis on outdoor play next year. The team met once to discuss a similar activity packet for the entire year. One teacher referred to this as "guided play rather than active teaching." The writer feels that whatever it is called, an organized outdoor period of specific activities will be the most value to each individual child.

The writer noticed a big change in behavior over the ten weeks of implementation. Before beginning this practicum, the writer observed the children during their twenty-five minute outdoor activity time. It was observed that some of the children ran out the door and to the newly built pavilion area. A few children used the equipment provided. Many children ran around the area hollering, throwing sand and pushing others. These same behaviors were present every time the writer observed over a month's period of time.

During and after implementation, the children clustered around the aide asking, "What are we going to do today?" Group A who received direct instruction and practice in the form of organized activities used the equipment more and correctly, played group games and sat down less. Group B continued the previously mentioned behaviors.

It was very difficult for teacher and writer to assess a change in related muscle activities within the frame of the classroom due to the time of year. The class was involved with extra activities like a Spring program and end of year testing that limited the amount of large muscle activity.

CHAPTER 5: RECOMMENDATIONS

Since the results of this practicum were positive, the writer will encourage the teachers and aides at this level to continue direct instruction and practice as to outside activities. This practicum's results will be shared with all primary specialists in this county. Many of them are asked to write strategies for motor coordination problems. The activity packet will be provided for them to borrow and copy if desired.

The present teachers and aides have developed a committment to the value of this learning time. However, shifts in faculty are constantly occurring, often interrupting a consistent program. To remedy this problem, the writer would make the following recommendations for the future:

1.) The activity packet needs to be expanded to cover a school year rather than ten weeks. The materials used to compile the packet should be kept in a central place so each kindergarten teacher and aide will have easy access to it.

2.) Inservice training should be provided at the beginning of each year, or any time new staff is added, to include location of materials and philosophy of the program.

3.) A portion of each teacher's budget should be designated each year to replace such items as balls, hoops and jump ropes. Since each classroom uses the same area at different times, the responsibility for maintenance of the movable outdoor equipment should be shared.

4.) Each teacher should plan to spend at least one outdoor period a week with her class for the purpose of observation and participation.

BIBLIOGRAPHY

Anchorage School District, Elementary Physical Education Weekly Lesson Plan-Kindergarten. Anchorage, Alaska: School District, 1977.

Association for Childhood Education International. Physical Education for Children's Healthful Living. Bulletin #23A. Washington, D.C. : 1968.

Braley, William T.; Konicki, Geraldine: Leedy, Catherine. Daily Sensorimotor Training Activities. Freeport, New York: Educational Activities, Inc., 1968.

Brooks, Dana. "Survey of Current Status of Motor Development." Journal of Physical Education and Recreation 50(October 1979): 79-80.

Brophy, Jere. "Teacher Praise: A Functional Analysis." Review of Educational Research 51 (Spring 1981): 5-32.

Brophy, Jere, and Putnam, Joyce G. Classroom Management in the Elementary Grades. Michigan State: Institute for Research on Teaching, (1978).

Capon, Jack J. Perceptual Motor Development Series. Belmont, California: Pitman Learning, Inc. 1975.

Centra, John A. and Potter, David A. "School and Teacher Effects: An Interrelational Model." Review of Educational Research 50 (Summer 1980): 273-91.

Cohen, Michael. "Effective Schools: What the Research Says." Today's Education 70 (April/May 1981): 58GS-61Gs.

Coker, Homer; Medley, Donald M.; and Soar, Robert. "How Valid are Expert Opinions About Effective Teaching?" Phi Delta Kappan 62 (October 1980): 131-4.

Colwell, Lida C. Jump to Learn: Teaching Motor Skills for Self-Esteem. San Diego, California: Pennant Educational Materials. 1975.

Continuum of Skills and Grade Level Expectations. Lee County, Florida. 1976.

Corbin, Charles B. Becoming Physically Educated in the Elementary School. 2nd. Edition. Philadelphia: Lea and Febiger, 1976.

Division of Curriculum Development. Approaches to Programs of Motor Development and Activities for Young Children. Austin: Texas Education Agency, 1977.

Frost, Reuben B. Physical Education Foundations--Practices --Principles. Reading, Massachusetts: Addison-Wesley, 1975.

Frostig, Marianne. Move*Grow*Learn. Chicago:Follett Educational Corporation, 1969.

Good, Thomas. "Teacher Expectations and Student Perceptions: A Decade of Research." Educational Leadership 38 (February 1981): 415-22.

Good, Thomas L. "Teacher Effectiveness in the Elementary School." Journal of Teacher Education 30 (March/ April 1979): 52-63.

Hall, J. Tillman; Sweeny, Nancy Hall; Esser, Jody Hall. Until the Whistle Blows. Santa Monica, California: Goodyear Publishing Company, Inc., 1976.

Isaacs, L. D. "Catching Performance: Implications for the Practitioner." Journal of Physical Education and Recreation 51 (October 1980): 56-8.

Landers, Donna M. "How, when, where to use Demonstrations." Journal of Physical Education and Recreation 49 (January 1978): 65-7.

Lay, Nancy. "Practical Application of Selected Motor Research." Journal of Physical Education and Recreation 50 (September 1979): 78-9.

Lutz, Jay P. Lecture*Research Nova University, Fort Myers Site, September, 1981.

McCord, Gretchen. "3 & 4 year olds." New York State Cooperative Extension. Ithaca, New York: Cornell University, 1978.

Miller, W. C. "Staff Morale, School Climate and Educational Productivity." Educational Leadership 38 (March 1981): 483-6.

Noon, Elizabeth F. "Time on Task." Instructor 91 (September 1981): 58-9.

Office of Curriculum and Instruction. Physical Education. Key Competencies. Elementary: Grades K-9. Philadelphia: School District, 1980.

Oregon State Department of Education. Physical Education in Oregon Schools. Salem: State Government, 1979.

Physical Education Curriculum Guide: Performance Expectations, K-12. New Jersey, 1980.

Safran, Claire. "How Good is Your Child's Physical Education?" Redbook, Volume 158, Number 1, November, 1981.

Sall, Nona G. "A Gross Motor Skills Development Program for Children in Kindergarten-Primary." Doctoral practicum, Nova University, March, 1975.

Saul, Fran C.; Paris, Jolie; Flinchum, Betty. Pre-Kindergarten, Kindergarten, First Grade Curriculum Guide. Jacksonville: Duval County Public Schools, 1977.

Shalaway, Linda. "42% of day is spent in noninstructional activities." Instructor 91 (September 1981): 58-9.

Siedentop, Daryl. Physical Education: Introductory Analysis. Dubuque, Iowa: Wm. C. Brown Co., 1976.

Simpson, Marian. Motor Perception Activities for the Kindergarten. Wayne, Nebraska: Project Success, (1977).

Slavin, D. "Effects of Individual Learning Expectations on Student Achievement." Journal of Educational Psychology 72 (August 1980): 520-4.

Stallings, Jane. "How instructional processes relate to child outcomes in a national study of Follow Through." Journal of Teacher Education 27 (1976): 43-7.

Taylor, G. C. "Findings from Research on Teacher Effectiveness." Reading Teacher 34 (March 1981): 726-30.

Tomlinson, Tommy. "Effective Schools: Mirror or Mirage?" Today's Education 70 (April/May 1981): 60GS-61GS.

Zweig, Richard L.; Dole, Phyllis W.; Watt, Sandra A. Observation Guide for the Santa Clara Inventory of Developmental Tasks. Santa Clara, California: Richard L. Zweig Associates, Inc., 1974.

DEVELOPMENTAL PROFILE

Santa Clara Inventory
of
Developmental Tasks

DIRECTIONS FOR THE TEACHER This is the record form on which each child's performance is recorded The column for Testing Dates allows the teacher to measure each category up to three times however if the student exhibits mastery when first observed only one date is entered The abbreviations mean S E — Social Emotional M C — Motor Coordination V M P — Visual Motor Performance V P — Visual Perception A P — Auditory Perception A M — Auditory Memory L D — Language Development C D — Conceptual Development The scoring criteria for each task are listed in the Observation Guide

Name _____ **Birthdate** _____

School _____ **Teacher** _____ **Grade** ____

Testing Dates:

C.D.			
L.D.			
A.M.			
A.P.			
V.M.			
V.P.			
V.M.P.			
M.C.			
S.E.			

Scoring:

0 — Almost never
1 — Some of the time
2 — Most of the time

Quarter 1 Black
Quarter 2 Red
Quarter 3 Blue
Quarter 4 Green

	PRE-SCHOOL	4 yrs. 4½ yrs	5-5½ YRS.	6-6½ YRS.	7 YRS.
Motor Coordination	creep 1-1; walk 1-2; run 1-3; jump 1-4	hop 1-5; balance on one foot 1-6	use of hands and arms 1-7; skip 1-8	balance on walking beam 1-9; jump rope assisted 1-10	jump rope unassisted 1-11
Visual Motor Performance	follow target with eyes 2-2; string beads 2-3; copy a circle 2-4	copy a cross 2-5; copy a square 2-6	cut with scissors 2-7; tie shoes 2-8	copy letters 2-9; copy a sentence 2-10	copy a diamond 2-11
Visual Perception	match color objects 3-3; match form objects 3-4	match size objects 3-5; match size and form on paper 3-6	match numbers 3-7; match letters 3-8	match direction on design 3-9; isolate visual images 3-10	match words 3-11
Visual Memory	recall animal pictures 4-4	name objects from memory 4-5; recall a 3-color sequence 4-6	recall 2 items in a sequence 4-7; reproduce design from memory 4-8	recall 3 items in a sequence 4-9; recall 3-part design 4-10	recall word forms 4-11
Auditory Perception	locate source of sound 5-5	identify common sounds 5-6	discriminate between com. sounds 5-7; match beginning sounds 5-8	hear fine diff. between similar words 5-9; match rhyming sounds 5-10	match ending sounds 5-11
Auditory Memory	perform 3 commands 6-6	repeat a sentence 6-7; repeat a tapping sequence 6-8	repeat 4 numbers 6-9; recall story facts 6-10	repeat 5 numbers 6-11	
Language Development	give personal information 7-7	describe simple objects 7-8	relate words and pictures 7-9; define words 7-10	language usage 7-11	
Conceptual Development	assign number value 8-8	identify, first, last, top, middle, bottom 8-9; tell how 2 items are alike 8-10	sort objects 2 ways 8-11		
Social-Emotional	communicates freely A-1; enters into school routine A-2; copes with frustration A-3; proud of accomplishments A-4; emotional independence A-5; communicates with adults A-6; participates in activities with adults A-7	accepts directives from adults A-8; accepts differences in peers A-9	shows empathy for peers' needs A-10; aware of others' feelings A-11	works and plays cooperatively A-12	

©1980 ZWEIG ASSOCIATES

APPENDIX B

SUGGESTED YEARLY PHYSICAL EDUCATION PROGRAM

September - Class organization
Movement Activities
Swimming and Water Safety
Exit-Level Skills - Hopping, Skipping, Jumping

October - Movement Activities
Perceptual-Motor Activities
Exit-Level Skills - Balance Beam

November - Perceptual-Motor Activities
Kicking Activities
Exit-Level Skills - Run and Kick a ball; kick a rolling ball.

January - Movement and Perceptual-Motor
Emphasis - Jump Rope Activities
Exit-Level Skills - Individual Jump rope; Jumping rope turned by others.

February - Rhythmic Activities
Exit-Level Skills - Marching, Skipping, Clapping to music

March - Stunts and Tumbling Exercises
Physical Fitness
Exit-Level Skills - Six Modified Push-Ups; Forward Roll.

April - Playday Activities
Track and Field - Running, Jumping Low Hurdes (Cones), Throwing
Exit-Level Skills - Review

May - Striking-Throwing Activities
Water Safety and Swimming
Exit-Level Skills - Review

APPENDIX C

Mastery Criteria for Santa Clara Inventory

1-5 Hop

Child is able to hop a distance of 10' on left foot and 10' on right foot.

Y-6 Balance on One Foot

Child balances easily on right foot for 5 seconds, then repeats with left foot for 5 seconds.

1-7 Use of Hands and Arms

Child is able to bounce ball with either hand.

1-8 Skip

Child is able to skip smoothly a distance of 20'.

1-9 Balance on Walking Beam

Child maintains a smooth balance, walking forward heel-to-toe fashion across a 12' beam that is 4" wide.

APPENDIX D

SAMPLE OF ACTIVITIES IN PACKET

Skill 1-5 HOP

Weeks 1 & 6-Monday

1. Hop in place.
2. Hop in place on right foot, left foot.
3. Hop forward and backward on two feet.

Weeks 2 & 7-Tuesday

Children practice hopping like various animals.
Ex. bunny, kangaroo, bird.
Child chooses animal to imitate, other children guess.

Weeks 3 & 8-Wednesday

Form relay teams, hop to line and return.

Weeks 4 & 9-Thursday

Children practice hopping with arms folded over chest.
Children hop with eyes closed.

Weeks 5 & 10-Friday

Children hop(2 feet) with playground ball between legs.
Form relay team if interest is shown.

Skill 1-6 BALANCE ON ONE FOOT

Weeks 1 & 6-Tuesday

1. Jump; switching legs scissors style.(10 times)
2. Children stand on tiptoe and count to 10.
3. Run on tiptoe around circle.

Weeks 2 & 7-Wednesday

Toss bean bag and catch.
Toss bean bag and jump before catching.
Jump forward and backward over jumprope.(6" off ground)
Jump forward with 2 feet, land on 1.

Weeks 3 & 8-Thursday

Play "Hokey-Pokey"

Skill 1-6 BALANCE ON ONE FOOT(continued)

Weeks 4 & 9-Friday

Play "Looby-Lou" with lots of left and right.

Weeks 5 & 10-Monday

Play "Mother, May I?" using tiptoe, giant and umbrella steps.

Skill 1-7 BOUNCE

Weeks 1 & 6-Wednesday

1. Bounce ball with 2 hands.
2. Bounce ball with either hand.
3. Bounce ball using alternating hands.

Weeks 2 & 7-Thursday

1. Bounce ball waist high.
2. Bounce ball low.
3. Bounce ball and walk, maintaining control.

Weeks 3 & 8-Friday

Practice bouncing and standing in one place.

Weeks 4 & 9-Monday

Play "Funnel Ball" Toss, catch and bounce.

Weeks 5 & 10-Tuesday

Bounce and Catch before ball bounces again.

Skill 1-8 SKIP

Weeks 1 & 6-Thursday

1. Practice technique of skip-Step, hop,step, hop.
2. Skip both directions around a circle.

Weeks 2 & 7-Friday

1. Practice skip in small circle.
2. Practice skip in large circle.
3. Practice skip in figure 8.
4. Practice to music.

Skill 1-8 SKIP(continued)

Weeks 3 & 8-Monday

Form teams. Skip relay for 10'.

Weeks 4 & 9-Tuesday

Play "Farmer in the Dell" with children skipping around outside of circle in one direction.

Weeks 5 & 10-Wednesday

Divide the children into two groups. Have one group randomly spread apart and stand still. The other group then skips among the stationary children, changing directions in order to avoid collisions. If skipping child touches someone, he must switch places with a stationary child.

Skill 1-9 BALANCE BEAM

6" Balance Beam for Weeks 1-5.
4" Balance Beam for Weeks 6-10.

Weeks 1 & 6-Friday

1. Walk forward and backward on beam.
2. Walk to center, turn and walk back to start.
3. Walk sideward, left and right.

Weeks 2 & 7-Monday

1. Walk forward with left foot always in front. Step, slide motion. Change foot in front, repeat.
2. Walk forward and backward, hands on hips.
3. Walk forward, pick up object in center, continue across.

Weeks 3 & 8-Tuesday

1. Walk across and focus on target.
2. Walk forward with bean bag balanced on head.
3. Walk backward with bean bag balanced on head.

Weeks 4 & 9-Wednesday

1. Walk forward with bean bag on head, watching target.
2. Walk to center, step over jumprope(8" above beam) continue across.

Weeks 5 & 10-Thursday

1. Walk across and under stick held 3' above center of beam, continue across.
2. Child walks with hands on top of head.

APPENDIX E

PRACTICUM EVALUATION-AIDE

Did you find the activities provided worthwhile?

____yes ____no

Did the activities seem to be appropriate for the Kindergarten children?

____yes ____no

Did the children willingly participate in the activities?

____yes ____no

Most of the activities were designed to take 10 minutes of the outdoor play period. Was this enough time to spend each day?

____yes ____no

Did you notice any change in group participation on the playground or in any other areas?

____yes ____no

If yes, what kind of change?

Is there any group of children you felt benefitted most from these activities?

____yes ____no

If yes, which one?

Were the directions provided with he activity clear and easy to follow?

____yes ____no

Was the teacher and implementor's weekly involvement enough?

____yes ____no

Would you like to see these activities expanded into a yearly program?

____yes ____no

What changes/suggestions could you recommend as to program, activities, materials, etc? (Please use back of form.)

APPENDIX E

PRACTICUM EVALUATION-TEACHER

At the beginning of this project, did you believe a change could occur in the development of motor skills through direct instruction and practice?

____yes ____no

(TREATMENT GROUP)
Have you seen any changes in group participation within your classroom during the last ten weeks?

____yes ____no

Did you go outside and participate with your class at least once a week?

____yes ____no

****

Now that you have seen the results of the project, what changes, if any, would you like to plan in your outdoor program next year?